

ESTABLISHED IN 1861 THE AMERICAN OLDEST BEE-PAPER IN AMERICA

# BEE JOURNAL

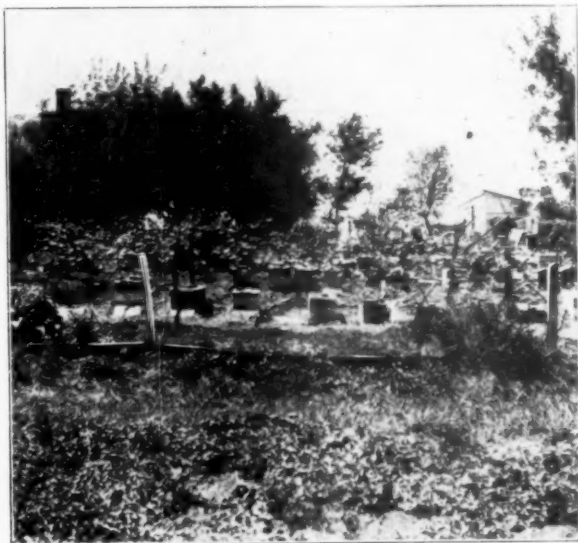
45th Year

CHICAGO, ILL., AUGUST 10, 1905

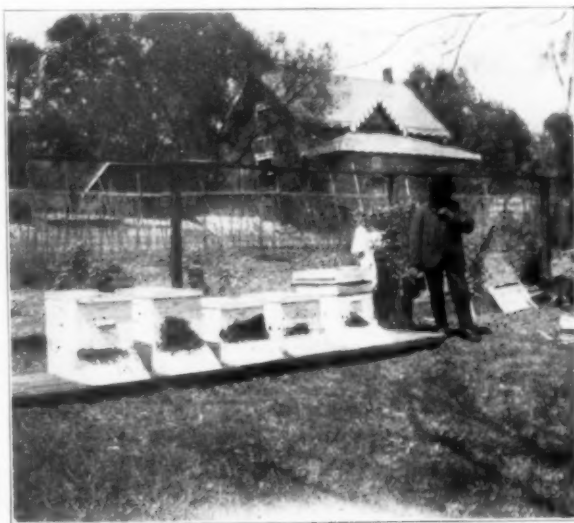
No. 32



Part of Home Apiary of T. P. Robinson, of Williamson Co., Tex. Making examination preparatory to grafting queen-cells. Mrs. Robinson at the right, and Miss Myrtle Adams at the left.



Apiary of Albert J. Stratton, of Lyon Co., Kan.



Apiary of C. C. Richardson, of Hamilton Co., Ohio.



PUBLISHED WEEKLY BY  
**GEORGE W. YORK & COMPANY**  
 334 Dearborn Street, Chicago, Ill.

#### IMPORTANT NOTICES

THE SUBSCRIPTION PRICE of this Journal is \$1.00 a year, in the United States, Canada, and Mexico; all other countries in the Postal Union, 50 cents a year extra for postage. Sample copy free.

THE WRAPPER-LABEL DATE indicates the end of the month to which your subscription is paid. For instance, "dec 15" on your label shows that it is paid to the end of December, 1904.

SUBSCRIPTION RECEIPTS.—We do not send a receipt for money sent us to pay subscription, but change the date on your wrapper-label, which shows that the money has been received and credited.

ADVERTISING RATES will be given upon application.

#### National Bee-Keepers' Association

Objects of the Association

- 1st.—To promote the interests of its members.
- 2d.—To protect and defend its members in their lawful rights.
- 3d.—To enforce laws against the adulteration of honey.

Annual Membership Dues, \$1.00

General Manager and Treasurer—  
 N. E. FRANCE, Platteville, Wis.

If more convenient, Dues may be sent to the publishers of the American Bee Journal.

#### The Honey-Producers' League

(INCORPORATED)

##### OBJECTS:

1. To create a larger demand for honey through advertising.
2. To publish facts about honey, and counteract misrepresentations of the same.

##### MEMBERSHIP DUES

1. Any bee-keeper may become a member by paying to the Manager an annual fee of \$1.00 for each 20 (or fraction of 20) colonies of bees (spring count) he owns or operates.

2. Any honey-dealer, bee-supply dealer, bee-supply manufacturer, bee-paper publisher, or any other firm or individual, may become a member on the annual payment of a fee of \$10, increased by one-fifth of one (1) percent of his or its capital used in the allied interests of bee-keeping.

GEORGE W. YORK, Manager,  
 334 Dearborn St., CHICAGO, ILL.

#### Italian Queen-Bee Free as a Premium

To a subscriber whose own subscription to the American Bee Journal is paid at least to the end of 1905, we will give an untested Italian queen for sending us ONE NEW subscription with \$1.00 for the Bee Journal a year. Now is the time to get new subscribers. If you wish extra copies of the Bee Journal for use as samples, let us know how many you want and we will mail them to you. Address all orders to the office of the American Bee Journal.

## HONEY-JARS.

For a limited time we offer No. 25 Honey-Jars, porcelain cover, metal screw cap, holding one pound of honey net, one gross in case complete in 5-gross lots, \$4.00 per gross; less quantities, \$4.50 per gross, f.o.b. New York. If you want to secure some, let us know at once.

**HILDRETH & SEGELKEN,**  
 265 & 267 GREENWICH ST., NEW YORK, N. Y.  
 11Atf Please mention the Bee Journal.

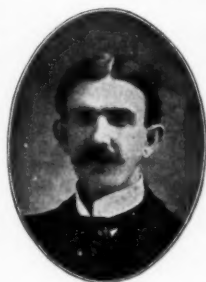
#### IN THE HEART OF MICHIGAN

Within a hundred miles of me are over  $\frac{3}{4}$  of the bee-keepers of Michigan. I am on the Pere Marquette R.R., which completely covers this region. Root's Goods, Factory Prices, Prompt Service, Low Freight. Send for Catalog.

**GEORGE E. HILTON,**  
 28A12: FREMONT, MICH.

Please mention the Bee Journal when writing.

"If Goods are wanted Quick, send to Pouder"



## BEE-SUPPLIES

Root's Goods at Root's Prices

Everything used by Bee-Keepers.  
**POUDER'S HONEY-JARS.** Prompt Service.  
 Low Freight Rates. Catalog Free.

#### Hoosier Strain Italian Queen-Bees by Return Mail

Untested Queen.....	\$ .75	Select Breeding Queen.....	\$5.00
Select Untested Queen.....	1.00	Best Imported Queen.....	5.00
Tested Queen.....	1.00	Fair Imported Queen.....	3.00
Select Tested Queen.....	2.00		

**WALTER S. POUDER,**

513-515 Massachusetts Ave., INDIANAPOLIS, IND.

Please mention Bee Journal when writing

## Millions of Sections Shipping-Cases TONS of COMB FOUNDATION

Abundance of Bee-Smokers, Bee-Veils, Bee-Escapes, Bee-Hives, etc. Everything the bee-keeper needs. The best goods made. Lewis' Goods in Indianapolis at Factory Prices. Orders received in the morning shipped same day. FINE ITALIAN QUEENS mailed promptly from our breeder, here in the city. Untested, 75c; Select Untested, \$1.00; Tested, \$1.00; Select Tested, \$2.00.

**C. M. SCOTT & CO.** 1004 EAST WASH. STREET INDIANAPOLIS, IND. ++ ++ ++

N.B.—A Porter Bee-Escape, or its equivalent, FREE with first order, if you say where you saw this ad.

#### Learn Telegraphy and R. R. Accounting

\$50 to \$100 per month salary assured our graduates under bond. You don't pay us until you have a position. Largest system of telegraph schools in America. Endorsed by all railway officials. OPERATORS ALWAYS IN DEMAND. Ladies also admitted. Write for Catalog.

**MORSE SCHOOL OF TELEGRAPHY,**  
 Cincinnati, O. Buffalo, N.Y. Atlanta, Ga. LaCrosse, Wis. Texarkana, Tex. San Francisco, Calif.  
 29A17t Please mention the Bee Journal

#### FOR SALE

100 colonies of BEES. Will trade for land in western Kansas.

**EDWIN BEVINS, Leon, Iowa**  
 32A2t Please mention the Bee Journal.

#### If you want the Bee-Book

That covers the whole Apicultural Field more completely than any other published, send \$1.20 to

**Prof. A. J. Cook, Claremont, Cal.,**

—FOR HIS—

"Bee-Keeper's Guide."

Liberal Discounts to the Trade.



**BLACK BREASTED RED GAMES**  
 "The KING of Poultry." Large size, good layers of finest eggs. Hardy and fearless, the best all purpose fowl. Willow legs and Bay eyes. Illustrated circular. 25th year. **H. H. FLICK,** MANCHESTER, MD.

## Lewis' Shipping-Cases Sections, and a full line of Bee-Supplies

BY RETURN FREIGHT OR EXPRESS. Send to

**YORK HONEY AND BEE SUPPLY CO.** (Not Inc.)

141 & 143 Ontario Street, CHICAGO, ILL.

(5 short blocks north of the C. & N. W. Ry. Passenger Station, using the Wells St. Cable Line from center of city to Ontario St.)

Long Distance Telephone—North 1559

Catalog and prices on Honey on application. If you want Good Goods at Factory Prices and Prompt Shipment, send your orders, or call on us. BEESWAX WANTED—28c cash, or 30c when taking Bee-Supplies in exchange—delivered here.

# "DADANT'S FOUNDATION"

IT EXCELS.



WE GUARANTEE SATISFACTION.



~ ~ BEE-SUPPLIES ~ ~

OF ALL KINDS.



Beeswax Wanted at all Times.



DADANT & SONS, Hamilton, Ill.

**STANDARD BRED QUEENS.**

BUCKEYE STRAIN RED CLOVER. GOLDEN ITALIANS

By Return Mail. Safe Arrival Guaranteed.

	ONE	SIX	TWELVE
Untested	\$0.75	\$4.00	\$7.50
Select Untested	1.00	5.00	9.00
Tested	1.50	8.00	15.00
Select Tested	2.00	10.00	18.00

Select Breeders, each ..... \$3.00

Two-frame Nucleus and Red Clover Queen ..... 3.00

**THE FRED W. MUTH CO.,**

No. 51 WALNUT ST., CINCINNATI, OHIO.



## FINE QUEENS

By Return Mail. From my 3 and 5 banded long-tongued Italians. Tested, \$1; warranted tested, 75c; untested, 60c; no disease. I guarantee all Queens perfect, to arrive safely, and to give reasonable satisfaction. I have pleased others and can please you. May I ask for a trial order?

**CHAS. M. DARROW**  
23Atf R. F. D. No. 1. MILO, MO.

**WE SELL ROOT'S GOODS IN MICHIGAN**  
Let us quote you prices on Sections, Hives, Foundation, etc., as we can save you time and freight. Beeswax Wanted for Cash.

**M. H. HUNT & SON,**  
BELL BRANCH, WAYNE CO., MICH  
Please mention Bee Journal when writing.

**VIRGINIA QUEENS** Italian Queens secured by a cross, and years of careful selection from red-clover queens and superior stock obtained from W. Z. Hutchinson. Untested queens, 75c; after June 15, 60c; tested queens, \$1.00; after June 15, 75c; selected tested queens, \$1.25; after June 15, \$1.00. Write postal card for circular. **CHAS. KOEPPEN,** FREDERICKSBURG, VA. 17A26t

## QUEENS

We have secured the services of one of the best Queen specialists in the U. S. Over 20 years' experience rearing Queens. Our Yard is stocked with select breeders from the best yards in America, and can send Queens by return mail.

Prices to Sept. 1, 1905:

Untested Queens	..... \$ .75
Select Untested Queens	..... 1.00
Tested Queens	..... 1.50
Select Tested Queens	..... 2.50

**GRIGGS BROS.**

521 Monroe Street,  
TOLEDO, - OHIO.

Please mention Bee Journal when writing.



## Bee - Supplies !

We carry a large stock and greatest variety of everything needed in the Apiary, assuring best goods at lowest prices, and prompt shipments. We want every bee-keeper to have our Free Illustrated Catalog, and read description of Alternating Hives, Massie Hives, etc. Write at once for Catalog, either English or German language.

**KRETCHMER MFG. CO., Red Oak, Iowa.**

—AGENCIES—

Trester Supply Co., Lincoln, Neb.	Fulton & Ford, Garden City, Kansas.
Shugart & Ouren, Council Bluffs, Iowa.	I. H. Myers, Lamar, Colo.
Southwestern Bee Co., 438 W. Houston St., San Antonio, Tex.	

## QUEENS

August is the time to requeen the apiary. It pays to have the best possible stock. Root's Red Clover Strain is famous the world over for its many points of excellence. A young, vigorous queen introduced now will bring the colony up to the best possible condition for wintering. Queens, too, now are the cheapest, and prompt delivery is made.

We are in an unequalled position to fill your queen orders. Having eleven apiaries, approximately 900 hives, with hundreds of Baby Nuclei, we are in condition to take care of all orders sent.

### Table of Prices

#### Regular Italian Queens

Untested queens	75
Select untested queens	1 00
Tested queens	1 50
Select tested queens	2 50

#### Red-Clover and Other Strains of Italian Queens Reared in the Root Co's Apiaries

Untested queen	\$1 00
Select untested queen	1 25
Tested queen	2 00
Select tested queen	3 00
Breeding queen	5 00
Select breeding queens	7 50
Extra select breeding queens, 1 year old	10 00

#### Imported Queens

Fair imported queens	\$3 00
Best imported queens	5 00

#### Caucasian Queens

We can spare a limited number of imported Caucasian queens, received direct from the best breeders in Caucasus. Prices as follows:

Extra select Caucasian imported queens	\$15 00
Select Caucasian imported queen	10 00
Extra select untested Caucasian-Italian queens, from Caucasian mothers mated with Italian drones	3 00
Select do.	2 00
Orders filled in rotation. Delivery begins about July 15.	

#### Prices of Nuclei

One frame nucleus, without queen	\$2 00
Two-frame nucleus, without queen	3 00
Three-frame nucleus, without queen	3 50
One colony of bees in 8-frame Dovetailed hive, no queen	7 50

"I received my bees and queen and I am well pleased with them. The queen is a beauty, and the bees easy to handle. They were to work in ten minutes after I put them in the hive."—E. T. MILLS, Ills., May 15, 1905.

"I beg to acknowledge receipt of five fine queens, and, as they got here in good shape, beg to thank you for prompt and successful delivery. Without further advice, I am yours truly,

"FREDERICO SOMERFORD, Cuba, June 13, 1905."

"I am pleased to say that the bees are doing fine. I find eggs in every available cell. I also found the queen, and it is entirely satisfactory."—W. H. DURST, Ohio, July 20, 1905.

Send for complete price-list

## CASES

Don't allow your comb honey to be sold at low prices on account of poor Shipping-Cases. Put your crop into Root's No-Drip Cases, and it will reach the market in perfect condition and bring the highest prices. Our cases are made of selected basswood, with 2 or 3 inch glass front, which shows off the honey to the best possible advantage. Below is a condensed price-list. Complete prices and particulars are found in our General Catalog. Write for it.

Shipping-Cases. Name and Size of Case.	Nailed each.	Price complete including 3-in. glass one side, nails and paper, in flat.			With 2 in glass instead of 3—per 100.	Without the glass, per 100.
		1	10	100		
12-in. 4-row for 4 1/4 section	30	25	2 00	\$18 00	\$17 00	\$16 00
10-in. 4-row	30	25	2 00	17 00	16 00	15 00
12-in. 2-row	20	15	1 30	11 00	10 50	10 00
10-in. 2-row	20	15	1 20	10 50	10 00	9 50
16-in. 2-row	25	18	1 50	12 00	11 50	11 00
8-in. 3-row	20	15	1 30	11 50	10 75	10 00
6 1/4-in. 3-row	20	15	1 20	11 00	10 25	9 50
7 1/2-in. 4-row for 4x5	30	22	1 80	16 00		14 00
7 1/2-in. 3-row	25	20	1 40	12 00		10 50
9 1/2-in. 4-row for 3 1/2 x 5	30	22	1 80	16 00		14 00
6 1/4-in. 3-row	25	20	1 40	11 50		10 00

#### 5-Gallon Square Cans

These are the favorite packages for shipping Extracted Honey to the market. There can be no shrinkage and consequent leaking; no taint to the honey from wood, as is so frequently the case with kegs and barrels. The cans being square economize space, and are easily handled. This package is almost exclusively used in the West. They take 4th class freight-rate.

#### PRICE LIST OF SQUARE CANS.

No. in a box.	Capacity of each can		Price of		Wt. of 1 box.
	in gallons,	in honey.	1 box.	10 bxs.	
1	5-gal. can boxed	60 lbs.	\$ 55	\$ 5 00	10 lbs.
2	5-gal. "	60 "	85	8 00	15 "
10	1-gal. "	12 "	1 50	14 00	20 "
12	1½-gal. "	6 "	1 50	14 00	20 "
24	¾-gal. "	3 "	2 40	23 00	25 "
100	1-gal. "	12 "	11 00	105 00	110 "
100	1½-gal. "	6 "	9 00	85 00	80 "
100	¾-gal. "	3 "	7 00	65 00	60 "

"The consignment of bee-material received to-day. Your promptness in filling orders is remarkable, especially when the circumstances are considered. I am very well satisfied with the goods and your dealing. I take pleasure in having introduced Root's Goods into this neighborhood."—REV. WM. ENGELKE, Iowa, May 5, 1905.

"I do not want anything set up, as I would rather set the hives up myself, besides it is a pleasure to put Root's hives and fixtures together."—JOHN L. FUNK, Ohio, Jan. 11, 1905.

"I desire to thank you for being so prompt in sending the sections I ordered from you. They came in less time than it takes to tell it."—L. G. REED, Ohio, July 10, 1905.

Send for complete price-list

# The A. I. Root Company

## MEDINA, OHIO



#### BRANCHES

Chicago, 144 E. Erie St.

Philadelphia, 10 Vine St.

New York, 44 Vesey St.

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# AMERICAN BEE JOURNAL

(Entered at the Post-Office at Chicago as Second-Class Mail-Matter)

Published Weekly at \$1.00 a Year by George W. York & Co., 334 Dearborn St.

GEORGE W. YORK, Editor

CHICAGO, ILL., AUGUST 10, 1905

Vol. XLV—No. 32

## Editorial Notes and Comments

### A "Post" that Needs Posting

In the Denver Post the first week in July there appeared the following questions:

1. Is there such a thing as manufactured honey? If so, is it comb or extracted, and where can it be obtained?
2. Can eggs be manufactured?

The Post gave the following answers:

1. Yes. It is, both the comb and the extracted, and can be obtained from almost any grocer. A great percentage of the honey marketed now is of this class.
2. They can be and are.

Mr. R. R. Patterson, of Otero Co., Colo., sent us the newspaper clipping from the Denver Post, showing the above questions and answers.

As Manager of The Honey-Producers' League we wrote the editor of the Post, calling his attention to the honey misrepresentation, and requesting a correction, adding that we would be pleased to enroll the Denver Post in the list of newspapers that were helping to undo the wrong perpetrated on an honest industry by the starting of the manufactured-comb-honey libel some 25 years ago.

We have not had any reply to our letter to the Post's editor. If any Colorado bee-keepers have seen a correction of the quoted misrepresentations in the Post, we would be pleased to know it. Perhaps some Denver bee-keeper can enlighten us.

By the way, the poultry people ought to look after their "manufactured eggs" question and answer. We quoted it just to show what a lot of valuable information (?) the Post was giving its readers!

### Future of One-Piece Sections

Editor Root and Dr. Miller are at it again. This time it's a scrap as to the outcome of the growing scarcity of basswood lumber. Editor Root entertains the idea that as a result of that scarcity producers of section-honey will soon be driven to make a change to bulk honey or something else. The Doctor obstinately refuses to yield to such pessimistic views, and insists that he is not going to give up the production of section-honey, no matter how far skyward the price of basswood may soar. The following "stray straw" gives

the situation at latest accounts from the seat of war:

"At last we have the whole dread truth. After basswood lumber disappears it will cost 75 cents a thousand extra for 4-piece sections, page 701. Pshaw! If that's all, I'm not going to lie awake nights fearing that I'll have to give up the production of section honey."

To which Editor Root makes this comment:

"But, hold on, Doctor! When lumber advances labor will also advance somewhat. It is the experience of the Root Co. that our own labor has increased, and is still increasing in cost. Well, suppose we put the price \$1.00 per 1000 extra, you will have to add to that cost your own labor in putting the 4-piece sections together."

Clearly, Editor Root thinks 4-piece sections do not count. It's either 1-piece or no section honey. On the other hand, Dr. Miller will take "aid and comfort" from the fact that there are bee-keepers who used 4-piece sections before the 1-piece were known, and have never been willing to give up the 4-piece for the 1-piece. C. E. Woodward says in the last Bee-Keepers' Review:

"I have never yet seen a 1-piece section that I considered worth putting the foundation into. The 4-piece section, made from white poplar, is the only first-class section on the market."

### Injury to Queens in the Mails

Most of the queens sent by mail, fortunately, are untested queens that have only been laying a short time. These generally, not always, may be expected to do as good work as if they had taken no postal journey. On the other hand, there is much complaint that tested queens turn out poorly under the same circumstances, the purchaser sometimes feeling that he has not been fairly dealt with to have a queen prove a poor layer after having paid an extra price. The following paragraph from the Bee-Keepers' Review emphasizes the matter. Recounting a visit to J. P. Moore, the Kentucky queen-breeder, the editor says:

"Among the things mentioned by Mr. Moore, one worth repeating is the injury that comes to tested queens from shipping them, or, to be more exact, perhaps, from checking their egg-laying so suddenly by taking them from full colonies when they are at the height of their egg-laying. He says that a young queen, that has just commenced to lay, stands shipment much better, and usually proves to

be of value as an egg-layer after shipment, while a tested queen often turns out very poorly. He says that a tested queen ought to be shipped in a full colony or a nucleus, to say the least. I have noticed the same thing myself. This year I have bought several tested queens of various breeders, and very few of them have turned out well. One layed worker-eggs for awhile, and then turned drone-layer. Another layed a little while, and then turned up missing. None of them have proved good, prolific layers. Young queens, of this year's rearing, sent as soon as they had commenced laying, turned out all right. Still further, I bought nearly a dozen full colonies having tested queens at least one year old, and some are probably older, and these queens, never having been out of their hives, are splendid layers. As Mr. Moore says, a choice tested queen ought to be shipped in a full colony or a nucleus."

It is no new suggestion that a sufficient reason for the different results in mailing tested and untested queens lies in the fact that a tested queen taken right in the midst of heavy laying carries a burden of eggs nearly equal to the weight of her own body, while an untested queen carries a lighter weight. Let a man with a bag on his shoulder, nearly equaling his own weight, attempt to stand in the middle of a moving, swaying railroad car, and he may judge something of the difficulty to be met by the heavily laden queen. If sent in a nucleus or a full colony, she has a more secure footing upon her native heath.

It is a question, however, whether, with the proper precautions, the tested queen may not be sent just as safely by mail as any other. If she be taken from the hive and kept in a cage for 24 hours or more before being shipped, her burden of eggs will be greatly reduced in weight. Surely she ought to travel more safely for the lightening. Most likely any queen would be a little better off to go in a nucleus or full colony, but in cases of long distance express charges are high, perhaps amounting to more than the damage accruing to the queen when sent by mail. Safe advice to the beginner would be to say:

When buying a tested queen, either have her sent in a full colony or nucleus, or else stipulate that she be kept out of the hive a day or more before being mailed.

### Size of Cells

It may be convenient to remember the figures 3, 4, and 5 as applying to the size of cells, that is, their diameters. The diameter of a queen-cell at the time when the egg is placed in it is such that 3 of them placed side by side measure an inch; 4 drone-cells measure an inch, and 5 worker-cells.

### A Queen Experience

We sent a very fine yellow, selected untested Italian queen to a bee-keeper in Woodbury Co., Iowa, on June 21, as a premium. Tuesday, the 25th, we received the following letter from him, dated June 24, and also the queen still alive:

GEORGE W. YORK & CO.

Dear Sirs:—The Italian queen you sent me arrived Saturday eve, but the wire was mashed in, and in bad shape, and the bees feeble, so I return you the queen by to-day's mail. You can send me another one; but I want a good one, and yellow one.

Yours truly,

We at once wrote him that he should have introduced the queen, and not have returned her, as she doubtless would have turned out all right. The wire on the cage was bent in just a little, but that was nothing worth mentioning. If the bees accompanying the queen seemed to be a little weak, that was no detriment, as some bee-keepers destroy the bees and cage that come with a queen, and introduce the queen in another cage. This is done

to prevent the possibility of also introducing a contagious bee-disease.

No queen-buyer is ever justified in returning a queen that is received *alive*, as queen-dealers only guarantee *safe delivery*, and then *satisfaction*, provided the purchaser does his part. Had the Iowa bee-keeper done his best to use the fine queen we sent him, and she had died in a day or two, or had not given promise of being all right, we would gladly have sent him another queen *free*. But to return a queen that arrived safely, just because the cage-wire was bent in a little, and the accompanying bees seemed to be weak (all as a result of going through the mails), is not the way to treat a queen-dealer or breeder. We have had sufficient experience in the queen-selling business to know that many of the complaints against queen dealers are wholly unwarranted. Of course, some complaints are entirely justifiable. But we know of a number of queen-dealers who would much rather give a customer a half dozen queens than not to treat him fairly. Queen-dealers have rights as well as do those who buy queens, and when both parties to a deal will act fairly there will be no occasion for complaints.

## Miscellaneous News Items

**Baron H. De Blonay**, a noted Swiss bee-keeper who was also a civil engineer, died June 9. He was the owner of the castle of which Mr. C. P. Dadant gave a description in the American Bee Journal on his return from Europe. De Blonay was a very democratic man, and did not boast of his ancestry, which dated back nearly 10 centuries. He always signed his name "H. De Blonay, Eng." He was quite a lover of the bees, and a member of the Societe Romande d'Apiculture.

**California Apiarian Experiment Station.**—We take the following item from the Kingsburg (Calif.) Recorder:

The United States Department of Agriculture has established a sub-station in the plant-introduction garden at Chico, for investigations in apiculture. An apiary has been established, and a specialty will be made of the testing of honey-plants to be secured by Frank Beaton, of the Department, who is now in India. Bee-diseases on the Pacific Coast will be investigated, and experiments will be made with the different varieties of bees, among them the giant bees of India, and the various specimens of the Philippines. The apiary and sub-station at Chico is in charge of John M. Rankin.

**Buy Your Own Paper.**—B. F. Schmidt, of Clayton Co., Iowa, sends us the following, and suggests that it might interest our readers. But we feel quite sure that very few, if any, of the readers of the American Bee Journal borrow it from their neighbors:

A man who was too economical to subscribe for his home paper, sent his little boy to borrow the copy taken by his neighbor. In his haste the boy ran over a \$4.00 colony of bees, and in 10 minutes looked like a warty summer squash. His cries reached his father, who ran to his assistance, and failing to notice a barbed-wire fence, ran into it, breaking it down, cutting a handful of flesh from his anatomy, and ruining a \$5.00 pair of pants. The cow took advantage of the gap in the fence, and got into the cornfield and killed herself eating green corn. Hearing the racket the wife ran and upset a 4-gallon churn of rich cream into a basket of kittens, drowning

the whole flock. In her hurry she dropped a \$25 set of false teeth. The baby, left alone, crawled through the spilled cream and into the parlor, ruining a \$20 carpet. During the excitement the oldest daughter ran away with the hired man, the dog broke up 11 sitting hens, and the calves got out and chewed the tails off of 4 fine shirts.—Corfu "Enterprise."

**J. H. Fitch**, of Taylor Co., Iowa, made this office a pleasant call last week. He is 72 years of age, and still takes a deep interest in bees.

**Wm. Duncan**, of Dupage Co., Ill., dropped in to see us last week. He is a banker, and says he has lots of fun with his bees, as well as considerable profit from their honey.

The Michigan Bee-Keepers' Association is advertising the honey crop of its members through the medium of a booklet. This booklet has a crop report, which gives the name and address of each member having honey for sale, how much he has (comb and extracted), and how put up. The booklet also contains information regarding honey as a food, care of honey, etc. They are to be distributed among the honey consumers, and large honey-buyers of the State and elsewhere. If funds will permit, other advertising will also be done outside of the booklet. The plan has been tried one year, and was successful enough to warrant a second attempt this season. The Association extends a hearty invitation to Michigan bee-keepers to join the Association, and also asks them to send their names and reports of their honey crop, and the way it is put up, before Aug. 12, with \$1.00, and they will then get the benefit of this year's advertising. The \$1.00 will also make each a member of the National Bee-Keepers' Association with its benefits. Every Michigan bee-keeper should at once send his (or her) name and address with \$1.00 to the acting secretary, Elmore M. Hunt, Bell Branch, Mich.

## "Combed" and "Extracted"

### HONEY IN ANCIENT IRELAND.

There was no sugar, and honey was greatly valued; bee-hives were kept everywhere; and the management of bees was considered such an important industry that a special section of the Brehon Laws is devoted to it. The people used honey in a great many different ways. They basted roasted meat with it; it was used with salmon while cooking, and as a seasoning with all sorts of dishes. Often at meals each person had a little dish sometimes of silver, filled with honey, beside his plate and each morsel, whether meat, fish, or bread, was dipped into it before being conveyed to the mouth. The people often mixed honey with milk, either sweet or sour, for drinking. From honey also was made a kind of liquor called mead, very sweet and slightly intoxicating. This was considered a delicacy; and a visitor was often treated to a drink of mead immediately on arrival. As bees were so abundant, beeswax, as might be expected, was turned to account for lighting purposes. In some of our old records we find wax candles mentioned as being used in the houses of the richer classes (in Dinnree for instance) long before the fifth century.—From Joyce's Child's History of Ireland, in the Irish Bee-Journal.

### ACREAGE OF ALFALFA NECESSARY FOR 50 COLONIES.

How many acres of honey-plant are necessary to take care of 100 colonies of bees?

This being an alfalfa district, I thought it would perhaps interest my fellow bee-keepers to state my experience this summer, as the above question has often put me to thinking regarding pasturage.

In partnership with my brother we had 79 colonies, spring count. The season was at least three or four weeks late, having cold nights accompanied with drizzling rains at intervals throughout May until the middle of June. By this time the alfalfa was starting to bloom, "scattering." There were very few stores in the hives, no brood-rearing to speak of, as we have no blossoms to mention until alfalfa comes on. On the 26th of June we had two swarms come out which we had to feed for a few days on account of a cold rain. After then we had fine weather, and the bees went to work with a will on the thousands of acres of alfalfa surrounding us, which had a purple cast by this time. By the middle of July all the alfalfa was cut except a little around ditches, etc., our own fields included, and everything seemed to be at a standstill in the apiary. Up to this time we had hived 48 swarms, making a total of 128 colonies. There being very little sweet clover in bloom we decided that the only surplus honey we should get would be gathered on our own farm; and having 30 acres or more of alfalfa, we knew we could control that amount of pasture, as other fields are generally cut when coming in bloom, making better hay. When the first cutting of alfalfa was all done we had only 19 colonies working in the supers. On the 5th of August we were putting on another round of supers, honey coming in galore. That 30-acre field was a sight to behold. From morning till night it was a constant uproar. We stood there many times and listened to the buzz overhead as they passed to and fro, it doing us more good to know that they had at last struck a land of plenty, and we the satisfaction of knowing that we can control to a certain extent our own pasture. That alone amounts to us to more than the loss in hay.

Though only a novice of a few years' experience in bee-keeping, my idea of success in that line, "to be master of the situation," is to control as much as possible our own pasture, and not depend on our neighbors being delayed in cutting their fields of bloom. We are not so fortunate as some bee-keepers where nature provides with plenty of moisture and a constant honey-flow throughout the season. A scarcity of water for irrigation means a scant honey crop; therefore, profiting by this year's experience with alfalfa we will try next year to regulate the bloom so as to have a paradise for the bees throughout the season.

I am satisfied that 1,000 acres of honey plant isn't necessary to take care of 100 colonies of bees. We had 50 colonies that stored from three to six supers of honey, while the others fell below three supers.—Geo. J. Smith, of Colorado, in Gleanings in Bee-Culture.



## Contributed Special Articles

### Not More Colonies, But More from Each

BY GRANT STANLEY

THE question uppermost in the mind of many a bee-keeper is likely to be, How many colonies can I handle and make each colony turn out a good profit to the owner? There is scarcely any doubt, however, but that many bee-keepers are keeping more colonies than they can successfully handle, laboring under the impression that it is hives of bees rather than bees in a hive that is to bring ultimate success.

This article has no reference to the specialist or to the experienced bee-keeper who counts his colonies by the hundred, but rather to the majority of bee-keepers as we find them the country over.

Let us look at the farmer for instance. We know very well that there is scarcely a farmer that is large enough for his farm—he has so much land that he is “land poor,” so to speak; and if every farmer would put the manure and labor on 50 acres he now puts on 100 he would produce as much, while the reduction in taxes would be no small concern. If I mistake not, there are few farmers in Holland with more than 40 acres of land, and yet the best butter and cheese in the world is produced there. We can see from this that it is not so much in numbers as it is in making each number turn out the highest possible percentage of profit.

I am afraid too many bee-keepers are trying to over-reach in the increase of colonies instead of working to obtain the maximum result from the minimum number. It is not so much the number of colonies as it is in making each colony do its utmost in storing surplus. Any colony that does not store a high percentage after careful manipulation should be broken up, or change the queen. It surely does not pay to furnish hives, fixtures, and possibly labor, to run an apiary of 75 colonies when 50 can be made to secure the same profit. The “not how much but how well” principle will apply fully as well to bee-keeping as to any other line of business.

The queen may be from the most prolific strain in the world, and the hive simply a *ne plus ultra*, and yet without the constant attention on the part of the bee-keeper the highest results will not be reached. It must be the harmonious working of both bees and bee-keeper all along the line in order to bring all this about.

At present we hear a great deal about keeping more bees. If it refers to more bees in a hive, all right; but if it means more hives of bees, my views are somewhat different, and they are in tune with the highest principle of science—to obtain the best possible results from a minimum investment of capital.

Bee-keepers, above all others, have no time to sit at the corner grocery or post-office. If a few moments of leisure time manifest themselves he has perplexing questions which have so presented themselves that he needs to sit down and think them out. Remember, no business will run itself, and if we do not get behind it and shove it along it will not go. The more effort is put into any business the greater will be the success.

Lycoming Co., Pa.



### The Sense of Smell Among Bees—Some Experiments

Translated from “The Bulletin de la Société Romande D'Apiculture”

BY C. P. DADANT

IN July, 1902, while sojourning a few weeks in the Cevennes, I was perusing some old journals found in the sitting-room of an inn, while I was seeking to kill time in a long, rainy day, and the following lines fell under my eyes. I found them in the “France Agricole and Horticole” for April, 1900, and the title was, “Ants Recognize One Another by the Smell.”

“The ants,” said this article, “recognize one another very readily. When an ant enters a colony which is not its own, it is almost immediately put to death.” A German naturalist, Mr. Albrecht Bethe, of Strasburg, has sought to recog-

nize by which sense could be exercised so subtle a recognition, and has ascertained that it was a question of smell. Mr. Cook had already observed that if an ant touched water, it was infallibly attacked by its sisters at its return home, and he had concluded that the washing causes the ants to lose a special property enabling them to be recognized by one another. Then Mr. Forel (“The Ants of Switzerland,” page 263 and following) had confirmed this hypothesis, by showing that ants from different nests may be put together if previously their antennae, which are the olfactory organs, have been cut off.

“Adding to these considerations a new proof, Mr. Bethe crushed a few ants, and with the juice thus obtained he painted an ant which he then introduced into an ant's nest. When the ant was perfumed with juice of ants from this same nest, it was well received; in the contrary case it was at once attacked.

“A larva, washed in alcohol at 35 degrees, then put back in its nest, was similarly attacked as a stranger. Put aside 24 hours before being returned to the nest it was on the contrary well received, that lapse of time having been sufficient to allow it to reproduce its family smell. It seems, therefore, most likely that in the phenomenon of recognition it is the sense of smell which is in action.”

These lines have impressed others besides myself, for I have found them reproduced in L'Apiculteur, of June, 1900, as well as in divers other agricultural or apicultural publications.

The thought has come to me, while reading them, that that which applies to ants is applicable to bees whose customs and instincts differ but little from those of the former. I therefore resolved to repeat with bees the experiments of Mr. Bethe as soon as I would return home. But time failed me, and the entire year passed before I could make the projected experiments.

Last year, in April, as I was classifying some notes, the above quoted lines came back to daylight and reminded me of my projects. I happened to have a few days of quietude, the season was propitious, and I decided at once to make a few trials.

All the experiments made upon ants by Messrs. Bethe and Forel, with the exception of that on cutting the antennae, repeated by myself upon bees, ended in the same results; they no longer recognized their sister taken away half a minute before, when she had been washed in diluted alcohol. They accepted without difficulty the drones and the workers of another hive than their own when they had been previously painted with juice from crushed drones from their own hive. A few larvae daubed with diluted alcohol were found thrown out a few minutes later. Returned the next day with their sisters, those bees that had been washed with diluted alcohol and had been held long enough away from the hive to permit this odor to evaporate, were again well received in their home.

In the presence of these facts of which several experiments giving constantly identical results evidenced the value, I was led to enquire whether bee-keepers could not take advantage of this to open their hives and handle their bees, by giving to their hands the odor of the hive which they want to examine. I conducted my experiments in this direction, and will give you further the obtained results which I copy almost literally from what I pompously call “My Apiary Journal.”

L. FORESTIER.

(To be continued.)



### Retailing Honey—Glucose, Etc.

BY F. STROHSCHNEIN

CONSIDERABLE has been said and written about educating retailers to care for honey properly, and there is some ground for it, too, as I shall presently show.

Some time after the early honey harvest two summers ago I entered a small country store, and at once spied a case of comb honey upon the counter. This, of course, interested me, so while the merchant was doing up the articles which I had ordered, I tried to raise the cover of the case. This was not an easy thing to do, for it was covered with other things, among which was a cigar-box full of tobacco. When I did raise the cover enough to get a peep inside I saw quite a good deal of tobacco among the sections. I saw that case for weeks with only a few of the sections removed, and it was no great wonder that the honey did not sell, for if consumers purchase honey with a tobacco flavor they haven't much desire for more. If they did not see the tobacco they possibly had an

idea that the bees had gathered the honey from tobacco-plants.

I also saw in a store in a small city a case of honey which reminded me of a rugged, rolling country. It seemed to be up hill and down hill. The comb-surface was so uneven that it was very clear that the bee-keeper had used neither comb foundation starters nor separators. This honey retailed at 14 cents a pound, whether the price was higher or lower in the general market.

#### EATING GLUCOSE.

I have had some experience with glucose (Karo Corn Syrup). I have a delicate stomach, and certain articles of food produce a bad, slimy taste in my mouth the next morning after eating them. Glucose is among these articles, and up to the time of reading what Prof. Eaton has to say (page 710—1904) I supposed it was the acid, about which so much has been written, that produced these results. Now comes Prof. Eaton and upsets it all, saying that it is perfectly wholesome and contains no acid that is harmful. I have always supposed that pure glucose would be as easy to digest as honey. Yet if the commercial article is pure there is quite a difference, for honey has a beneficial influence on my stomach, while glucose produces opposite results.

#### HOFFMAN FRAMES WITH SQUARE EDGED END-BARS.

Several bee-keepers have expressed a preference for the Hoffman frames with a square instead of a V-shaped end-bar, and I must say that I agree with them, and the bees, too, for they will fill with propolis in the open space on each side caused by the V-shaped end-bar, making it square. In this way 10 times as much propolis holds the frames together as is possible with a square edge, and in separating these frames, and again in pushing them together, propolis gets between the edges and the spacing is increased to a certain extent, for frames need not be handled much, and they can not be gotten into a 10-frame hive unless the propolis is scraped off.

#### FASTENING FOUNDATION IN BROOD-FRAMES.

The method of fastening foundation with saw-kerf and wedge works beautifully with Dr. Miller, and yet after having tried both ways I find I can fasten starters or full sheets much quicker and more securely with melted wax. I say "more securely," for sometimes the saw-kerfs are not deep enough (or the wedges are too deep), when the wedges can not be driven in far enough, which leaves the foundation too loose, giving a lot of trouble by falling down.

My method is as follows: I get a piece of board  $\frac{1}{4}$  inch thick, 3 inches wide, and long enough to fit between the end-bars. One inch from one edge nail a strip one inch wide, and in thickness half of the top-bar less half of the thickness of the foundation. Hold this against the top-bar so that the strip will reach half across the underside of the top-bar, lay the starter against it, and fasten with melted wax. Thus fastened the starters will not fall down.

#### VALUE OF PROPOLIS AS A REMEDY.

L'Apiculteur advises bee-keepers to burn propolis on a stove to fill the room with a pleasant odor. I have often done this. But I know of a better use for propolis. For a swollen face, toothache, or other ailment, drop some propolis on a shovelful of hot coals, allowing the fumes to pass over the face, and its curative powers will soon be noticed. In Germany it was even used in this way to cure caked udders of cows.

The products of the hive are used far more as remedial agents in Germany than in the States. Little seems to be known as to where bees get their supply of propolis. In this locality they get their main supply from a sort of poplar-tree, or at least that is what I think it to be. The buds and short stems are full of this sticky glue, and propolis freshly gathered by the bees has the same odor as the glue on these trees, but after it has been for some time in the hive there is some difference in the odor.

#### IS CEDAR-WOOD MOTH-PROOF?

The honey-bees love the red-cedar trees because they know they are moth-proof. If one can afford to make cedar hives for his bees he will never be troubled with moths. So said Mr. C. S. Key before the Minnesota Horticulturists, when lecturing on the red cedar. I wonder if moths really will avoid cedar-wood. I do not think much would be gained by making hives of cedar-lumber, yet it might be of value for keeping brood and extracting combs secure from the moths. If any bee-keeper knows more about it I wish we might hear of it. I have also seen it stated that lice will not infest poultry if they roost on poles of cedar-wood.

#### WHY DO BEES IGNORE SOME FLOWERS AT TIMES?

Mr. D. W. Working (page 98—1904) tells of the prolificness of the Rocky Mountain bee-plant—*Cleome integrifolia*. One spring I got a package of its near relative, *Cleome pun-gens*, but none of the seed came up. Having some seed left it was again sown the next spring with the same results. To my surprise a single plant grew there last summer. It began to blossom the latter part of June and continued into September, and such a mass of bloom I never saw before. The discouraging part of it was that I never saw a honey-bee upon the blossoms, although a dozen or more bumble-bees were constantly swarming over it. I have also noticed this condition of affairs with golden-rod. Can any one give a reason why honey-bees will at certain times ignore the flowers of some plants though they are visited by bumble-bees, wasps, and other insects?

Winnebago Co., Wis.



## Convention Proceedings

### Report of the Chicago-Northwestern Bee-Keepers' Convention, held at Chicago, Ill., Nov. 30 and Dec. 1, 1904

(Continued from page 552.)

#### QUEENS KILLED WHEN INTRODUCING.

"I introduced a queen into a queenless colony and they killed her; four days afterwards I introduced another queen and they killed her. What should I have done?"

Mr. Wheeler—I would say, put healthy young bees into the hive to kill any drone-layers. They would prepare the way for the queen every time.

Mr. Swift—I had the crossdest lot of bees I ever ran across in my life; I couldn't get the queen into that hive; I tried three different queens. I gave it up. I kept them supplied with young bees all the time.

Mr. Snell—The best way is to introduce two frames of young bees into the parent colony, and at the same time put their queen in with them, or introduce a queen at that time. Those bees seem to destroy the laying worker so that the queen is never molested. I have never yet had a failure in that way.

#### DETECTING ADULTERATION IN BEESWAX.

"How can we detect foreign substance in beeswax?"

Mr. Dittmer—I don't know that I can give any rule. It is force of habit with me. I get wax sometimes, and it looks suspicious, and there is generally something the matter with it. The most common thing that occurs with me is receiving wax that contains tallow. In fact, some people have shipped wax to me and were rather rash about it, so that I think almost anybody could have detected it; but as to giving any chemical process, I can't say anything about it.

Mr. Abbott—I see Dr. Wiley has written another letter to explain the matter with regard to what is called the "Wiley lie," published in the Rural New Yorker. I was writing an editorial note on it before I left, for the Modern Farmer, and I used a sentence at the last of it that these comb-foundation people will be interested in, and these bee-keepers. Dr. Wiley says that paraffin is used wholly or in part in comb-foundation in the United States. This statement came from Canada a short time ago, and now it is repeated by the chief chemist of the United States, and I say in my editorial there are only a few manufacturers of comb foundation in the United States. If they put paraffin in wax they know it, and we want to know it. If they don't do it, it will not be a very hard thing for them to prove it. If they do do it, it will be a very easy thing for the United States chemists to prove. Now this subject of foundation is up, I think it would be a good time to hear from the comb-foundation makers right now as to what they have to say in answer to Dr. Wiley. I have had my say in the paper, and it will appear in the next issue, and I want to know if they put paraffin in foundation.

Mr. Dadant—I will give you three methods by which

you can all detect, without chemical analysis, whether comb foundation is pure or not, and you can test it with your own beeswax, comparatively. The first test we have is the HEAT TEST. It is the most delicate because you have to get the exact heat at the exact spot. Foundation is a little more brittle, a little more in pieces than solid beeswax. Therefore you will heat the foundation more readily than beeswax. A lump of beeswax that is round or large will not heat so readily through as sheet foundation full of holes. Therefore you must expect your foundation to melt a little more readily. Between 135 and 150 is the temperature, but your thermometers may vary a little. You take a piece of beeswax, tie it to the thermometer, take it to the right spot, put it in a pint bottle, put the stopper in it, put it on the stove, and see at what degree that thin beeswax melts. Do the same with the sheet foundation, and see whether it melts at the same or about the same temperature. Another test is the SAPONIFICATION TEST. That is the changing of beeswax into soap; it will change to soap as grease will. It is no longer beeswax. Take lye and heat it, and take beeswax and melt it, and pour the two together and it will no longer be beeswax; if it is paraffin it will be paraffin. The paraffin will pour out just the same as before. The paraffin is a mineral substance which is not at all touched by lye, while beeswax is absolutely dissolved by lye.

The third test is SPECIFIC GRAVITY. Beeswax is heavier or lighter than other substances of the same kind. That is another very fine test, because if there is a little bulb of air in your specimen, whether beeswax or foundation, you will change the specific gravity. It is very difficult to make that test, but you can. A specimen that has a great deal of paraffin of one kind will flow where beeswax would go with the foundation. The way to do is this: Take water and put pure beeswax into it. Pour in alcohol until the beeswax goes to the bottom. The beeswax is then heavier than the solution which you have of water and alcohol. Then you are ready to test any samples that may come to you. In this particular it is the same thing as before. If your foundation is full of holes, when you put it under, the air will be in those and hold it up. You have to be very particular to have the wax from your foundation the same as your beeswax, if you want to make a proper test. If you have a sample of paraffin it will float, while the beeswax will go to the bottom.

Mr. Dittmer—It seems to me that the statement that Mr. Abbott has made, as to what Prof. Wiley said, puts the comb-foundation manufacturers in the position of being guilty unless they are proved innocent. It seems to me that is rather a poor predicament to find one's self in. Personally, I am perfectly satisfied that neither the Da-

dants nor the Roots use anything but what they know to be pure beeswax. So far as I am concerned, I think that my reputation with those who have used my foundation will carry me through. I think that the foundation manufacturers of this country have always had the reputation of using nothing but what they honestly knew to be pure beeswax; and as to taking the position of proving ourselves innocent, it seems to me that is the wrong position. We should be first proved guilty, and then give us a chance of saying something. But this idea of considering a man guilty until he proves himself innocent is wrong.

Dr. Miller—In Europe there are perhaps some 17,000 or more of the Rietsche presses in use; a large number of the bee-keepers making their own foundation. In this country I think there are not nearly so many bee-keepers making their own foundation as there were 25 years ago. I think the reason that so many of those Rietsche presses are used in Europe, and that the making of foundation has been simmered down to a small number of manufacturers, is that in Europe, they cannot buy pure foundation as we can here. I don't have any thought at all about the quality of foundation when I buy it; I know it is pure almost as absolutely as if I had given it all three of the tests mentioned by Mr. Dadant. I think Mr. Dittmer is entirely right in saying every man should be supposed to be innocent until proven guilty, and the burden of proof should not lie upon the manufacturer to prove that he is innocent. I think in the same way Wiley, if he has made that mistake again, should be taught to believe that he should not, after having made such a sad mistake before—that he should certainly not make the third mistake, or the bee-keepers of the country will resent it.

Mr. Abbott—Of course, you are just taking this on my say so, but I have the article and I suppose it is set up in type now and will be in the Modern Farmer in the next issue, and I cut it from the Rural New Yorker. This letter is addressed to the editor of that paper, and signed by Dr. Wiley. It seems the editor of the Rural New Yorker asked for an article with regard to the matter of adulterated honey, and Dr. Wiley is endeavoring to set himself right. It is in connection with the Ladies' Home Journal statement, and there is a whole column in it and the article closes up with the statement I refer to. Of course it was news to me. I thought I had been handling tons and tons of foundation that was pure, or, at least, I had been telling my customers it was pure, and I was standing behind it myself, and I had my reputation at stake and I wanted you people to know it as soon as possible. I thought I would send it to the American Bee Journal, but we like to get "a scoop," and I thought I would copy it first.

## Our Bee-Keeping Sisters

Conducted by EMMA M. WILSON, Marengo, Ill.

### Marketing Comb Honey—Getting Bees Out of Supers

I started with 2 colonies of bees one year ago in nailed-up boxes. They stored a little honey and sent out 2 swarms. But this spring we sent for new hives and transferred them, making 7 colonies out of the 4. They are just doing fine; 6 have nearly filled the first supers. We will put on the second supers to-day. I am working for comb honey.

Where is a good place to ship such honey, and how should I prepare it for shipping? There are a good many bees kept around here, so our home market is more than supplied.

What is the best way to get bees out of full supers when taking them off the hive?

I will write again when we take off the full crop this fall. MRS. ETTA BUTLER.

Iowa Co., Iowa.

Even if your home market is pretty well supplied there is a always a chance for competition, and if you put a superior article attractively prepared before the people you

may find a pretty good market for it at home, after all.

Still, if you wish to ship it, study the honey quotations in the American Bee Journal, and select from those nearest you. But remember there is a good deal of risk and trouble in shipping, and you will do well to take a lower price at home, making at least a difference of 2 cents a pound between home and distant market.

You can use the Porter escape, in the evening, placing the escape under the super you wish to remove, and by morning most of the bees will be down out of the super, which can then be removed. Or, you can place the supers in a room with screen-doors or windows, allowing the bees to collect on the screens, occasionally moving the screens to let the bees out.

At our house we like a quicker method, and

use the Miller tent-escape. We smoke the bees so they will run down somewhat before the supers are removed from the hive, then remove the supers, piling them up 10 or 12 high. If the piles are not so high of course the bees will come out quicker. Now we put on a Miller tent-escape and let the bees come out at their pleasure.

That you may know how to make a Miller tent-escape, the following is copied from Dr. Miller's "Forty Years Among the Bees."

#### ROBBER-CLOTH.

I take a piece of stout cotton cloth (sheeting) large enough to cover a hive and hang down 4 inches or more at both sides and at each end. This must be weighted down at the side with lath, and for this purpose I take four pieces of lath about as long as the hive. I lay down one piece of lath with another piece on it, and one edge of the cloth between the two pieces of lath. I then nail the two together and clinch the nails. I use the other two pieces of lath for the opposite edge of the cloth. This makes a good robber-cloth just as it is, but it is better to have the ends also weighted down, especially on a windy day. For this purpose I make a hem in each end, and put in it shot, nails, pebbles, or something of the kind, stitching across the hem here and there so the weighting material will not all run together at one side or the other.

## QUICK COVERING WITH ROBBER-CLOTH.

In any case where one wants to cover up a hive quickly against robbers, as when opening and closing the same hive frequently for the sake of putting in or taking out combs, this robber cloth will be found a great convenience. No careful adjustment is needed, as in putting on a regular hive-cover, but one

away the three flaps of cloth all but about  $1\frac{1}{4}$  inches, and turn this  $1\frac{1}{4}$ -inch margin into the inside of the tent and sew there with heavy thread.

Another way is a little easier to do, and it is a little better, although a little harder to describe. Take a piece of wire-cloth  $22 \times 9\frac{1}{2}$  inches. Mark a point at the middle of one of the longer sides, and on the other side mark



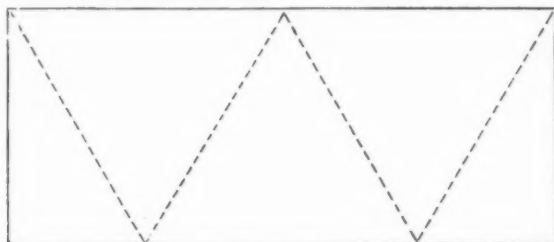
MILLER TENT-ESCAPE

can take hold of the lath with one hand, and with a single throw the hive is covered securely, with no killing of bees if any should happen to be in the way.

## MILLER TENT-ESCAPE.

Having made the robber-cloth, an escape, not in the shape of a cone, but in the shape of a pyramid, is fastened centrally upon it. Take three equilateral pieces of wire-cloth,

a point  $5\frac{1}{4}$  inches from each end, as shown in the figure. Make a fold at each of the dotted lines. The wire-cloth may be cut away at the two outside dotted lines, or, what is better, the end pieces may be folded over and sewed down. Now bring the two parts of the upper margin together and sew with wire, and then proceed to fasten the tent in place as before. In this latter case, of course, a hole must be cut at the top of the tent.



each of the three sides measuring 11 inches. Put them together in the form of a tent, sewing the edges together at the three sides by weaving fine wire through. At the top, however, let each of the pieces be folded out, so that a hole large enough to push your finger in will be left. Lay the tent centrally on the robber-cloth, and mark where the three corners of the tent come. Now starting at each of these points, cut the cloth to the center. Cut

When one of these tent-escapes is placed on a pile of supers, or on a hive containing bees, the bees will pass out freely at the top, but the bees that try to get in attempt to make the entrance farther down. Once in a great while there will gather a bunch of the outgoing bees at the top so as to clog the exit, and then the robbers will settle on this bunch of bees and work their way in, but a little smoke will scatter the bunch of bees.

## Mr. Hasty's Afterthoughts

The "Old Reliable" seen through New and Unreliable Glasses.  
By E. E. HASTY, Sta. B. Rural, Toledo, Ohio.

## PERHAPS A CASE OF SWARMING-OUT.

On page 377, a friend interested in bees, but quite uninformed about them, asks a long string of questions. The answer to the 10th one struck me as decidedly wrong—and being an appointed meddler, I meddle. The fact that the bees clustered and allowed themselves to be hived, although not positive evidence that they had a queen, seems to me a strong indication that they had. Bees in a hive which they consider home if they lose their queen just stray helplessly and hopelessly till they dwindle out by death, or by the inroads of moths and robbers. They do not swarm.

In a hive which they have not accepted as home yet, they are not likely to stay if the queen is lost—unless there is young brood to nurse, and rear a young queen from. With young brood and a strange hive I think it is a matter of some uncertainty whether they stay or not. If they choose to leave they can abandon the hive without doing it in exact swarming style. "Indiana's" bees had brood, and if indeed they were queenless they chose to stay.

Another thing. Bees eight days after losing their queen would have queen-cells, which they are unlikely to leave. I would infer from

this, also, that the queen was not lost. Queenless bees abandoning a hive which they do not consider home, would not cluster in a natural way, if I am right—might begin a cluster, but unlikely to form a complete and quiet one—most likely to throw themselves upon some other hive and try to enter, or, in case no other colony was by, to roam off in search of one. If any remains of their former home were to be found, they might go there and devote themselves to crawling helplessly around.

I should incline to say that the case in hand was a case of "swarming out," so-called. Queen stopped laying when the old colony was broken up. Probably had nearly stopped before by reason of short supplies. Hungry and discontented they felt still more discontented when the last brood was sealed. When there is little to eat, and nothing to do, a "hungry swarm," as they call it over in Europe, is quite in order. When put back they might be expected to stay for awhile. (Roosting in a tree-top did not strike them, on trying it, as improving the situation much.) And it transpired directly after that the honey-supply improved; and on that account they gratified their owner by flying out and in more. After all is said, however, I will grant the possibility of bees long time queenless forming a quiet cluster in a tree.

## TIME REQUIRED FOR SWARM-CLUSTERING.

When I first read Mr. Doolittle's article on how bees find their future home, I was taken a-back by the statement that a swarm clusters in from two to five minutes after coming out. Had it been some of our rank and file I should have smiled and said, He never actually timed bees with a watch, and his guess was quite a bit too small. But Mr. Doolittle rarely, if ever, lets things go with a mere wild guess. My first query was with myself. Does time seem longer to me just because a swarm is out? and have I been greatly overestimating? Well, swarms galore have been out this season, and (when not too much rushed) I have been timing them by the watch. I was not mistaken, so far as the strain of bees in my yard is concerned. They spend from 7 to 15 minutes on the wing.

Now the much more important question recurs, Do different strains of bees, and different yards, have different habits in this regard? If that's the case, it would explain some differences of opinion about certain other matters. Presumption favorable to the affirmative, to begin with. It's too late to ask for observations this season, but will not those who have the actual time of their bees please report? It's possible we shall find that different years differ. Quite possibly I have had, some time, a swarm come out and cluster in two minutes, but it is very, very rare if ever. The behavior of swarms in nearly all respects certainly takes a great range of variation. I think I wrote long ago that bees have forty different ways of swarming. Page 390.

## PUTTING WEAK COLONIES OVER STRONG ONES.

Edwin Bevins gives us, on page 452, a timely though small experiment—two weak colonies put over two strong ones without intending to unite. Total failure, so far as the object in view was concerned. Both queens of the weak colonies disappeared in ten days. The scheme is important enough to justify many more reports, small and large.

## BEE ODORS AND SENSE OF SMELL.

And so Arthur C. Miller must be getting after the bee's sense of smell as one of the old superstitions. All right. I'll hold his "bunnit" if somebody else doesn't get the job ahead of me. But until he proves something (as his first onslaught does not seem to), he must let us keep on using the familiar language about the bee's keenness of scent. Time enough to "go ahead" with new phrases when we are sure they are right. The dog (to an absolute certainty) recognizes his master by smell—and it's also certain that he has other means of recognizing him besides smell. Probably pretty strong that the same is the case with bees recognizing each other—also, that they are sometimes quite hateful to hivemates when they do recognize

as such—and sometimes quite peaceful toward aliens when they recognize them to be aliens. To cite human parallels, the smell of the Negro is different from the smell of the Caucasian (for the Caucasian race has a dis-

inctive smell); and the smell of the Chinaman differs from both. This shows that there is no ingrained absurdity about one little nation of bees differing slightly from another little nation. Page 453.

## Doctor Miller's Question-Box

Send Questions either to the office of the American Bee Journal,  
or to Dr. C. C. MILLER, Marengo, Ill.

Dr. Miller does not answer Questions by mail.

### A Swarm in a Chimney—Shade for Bees—Queenless Colony—Bee-Birds—Swarming—Taking Off Honey

1. How can I get a swarm of bees out of a chimney into a hive? Can I do so after they have started to build comb?

2. I have been told that all new swarms should be put in the shade and the old ones in the sun. Is this true?

3. If a colony is queenless will the bees rear a queen if given some brood?

4. How can I capture bee-killing birds?

5. When a swarm clusters and separates in two bunches upon the same limb, are there two or more queens?

6. How long before all the bees have left the super should a bee-escape be used?

IOWA.

ANSWERS.—1. It depends upon the particular conditions. Possibly all is within easy reach, so that you can easily get at the swarm and treat it just as if it was in a hive. If not, you can go at it in another way. Place a Porter bee-escape over the chimney, and over that a hive containing at least one frame of brood, the rest of the hive being filled with combs, frames of full foundation, or starters. The bees that come out, not being able to get back any farther, will settle in this hive, and at the end of 3 weeks you will have about all the bees, even if they have had comb and brood.

2. There is good reason for putting a newly-hived swarm in the shade, but I don't know why it isn't just as well to have an old colony also in the shade.

3. Yes, but it is much better to give them with the brood a sealed queen-cell.

4. Shoot them, then you can easily catch them. Perhaps, however, you might trap them, if you knew the kind of bait that would attract them.

5. Maybe, and maybe not.

6. The time varies. Sometimes the bees will be all out if the bee-escape is left on over night, and sometimes not. They are a help, but if you are in a big hurry they are too slow. That means escapes that allow bees to go down into the brood-chamber. The Miller escape, which is put on a pile of supers when they are taken from the hive, will be likely to leave the supers clear of bees if left on for half a day. For my own use I like these very much, but a man is likely to think well of his own baby. (See page 570.)

### White Flakes in Front of the Hive—Smoker Open at Both Ends

1. Last evening we had a telephone call to "bring a hive and take these pesky bees out of my grove." We did as we were told, and soon had the swarm transferred from the limb of a tree to a hive. I hived them on 2 drawn combs and 6 frames with full sheets of foundation, then set them in the apiary. To-day noon we notice the ground is strewn with little particles of white flakes, and is fairly white in front of the hive. Of course I know they claim this is wax from the bees. I could fill three or four thimbles from what is on the ground, and there was a lot of it on the limb from which I took the bees. This has a tendency to cause me to believe wax is spittle. The bees certainly have a place to use it in those 6 frames of foundation, if it is wax.

Had the bees been put on a full set of drawn combs I should have thought nothing of it. This is the first time I ever saw so much of it.

2. Is there a smoker made that can be opened at each end? If we could open the breech end to relight when the fire goes out it would be lots handier than pulling out all the wadding from the top just to get a light into it.

IOWA.

ANSWERS.—1. You are right as to the similarity between wax and spittle, at least to that extent that both are secretions. But if you are hinting that the little white scales that you could pick up by the thimbleful are any other than beeswax, you will have trouble to establish your point. Even if that colony was wasteful, and didn't use all the wax that was secreted, that doesn't prove that it was not the genuine article. Haven't you seen a good many pellets of pollen dropped and wasted? But you didn't conclude from that that it was not good usable pollen. If you will make good use of Joe's eyes when bees are busy building comb, you can satisfy yourself pretty thoroughly that the little pear-shaped scales are nothing but pure wax, fresh from the bee-factory, when you see the bees bringing them into use, a scale sometimes being plainly seen stuck onto the progressing work.

2. So far as I know there is no smoker made that opens at both ends. I have had breech-loaders, but I don't believe you would like them. In general we want to pile fuel on the fire, not under it. But it would be an easy thing to have a smoker constructed so as to load at each end, and I've no doubt you could get one by paying a little extra. But it's so seldom that a smoker needs relighting, that it would be only a nuisance to have it open at the bottom. There's something wrong with the fuel, the smoker, or with Joe, that allows the fire to die out till it burns out, and I don't believe a double-ender is the proper solution of the difficulty.

### Bees Filling a Super—A Play Spell—Straight Combs—Storing for Winter

1. How long does it take a strong colony of bees to fill one super? I put one on July 6, and they started to work in it right away. It holds 24 sections.

2. What makes the bees gather and waste time by flying in front of the hive about a half hour every day? About a week ago I raised the hives an inch in front, but they still do it.

3. I used full foundation sheets in all my hives, and still the bees have not made straight combs, but have bound them together here and there. What causes this? How can I separate them so I can pull them out one by one? If done once, will they connect them again, or how can I hinder this?

4. Will the bees stop working in the supers of themselves in time to fill their frames below for winter? If not, what shall I do?

5. Some time ago I bought a large prime swarm and had to haul them 4 miles, but I did not give them air enough, and when I came home I had only one pint of bees left. I cleaned out 13 quarts of dead bees, and then introduced a queen to them July 4, which they accepted. Will they build up before winter, and get enough honey to take them through till next spring?

WISCONSIN.

ANSWERS.—1. It may take all summer, and it may take 3 or 4 days. Either of these would be an extreme case. Perhaps 10 days to 2 weeks would be something like an average for filling and finishing; for it takes some time after being filled for the sealing to be finished. If the bees have abundance of room 2 weeks will be a pretty short time.

2. Bless your heart, you wouldn't grumble because children waste time playing, would you? Those bees are having a play spell, and raising the hive a foot wouldn't stop them. Don't worry, it's good for them.

3. Without seeing the case it's hard to answer; but if the work is properly done nothing of the kind should happen. I suspect just a little that you have put in the foundation without foundation splints or wiring, and that the foundation, being loose, has flopped about so as to touch in places. The foundation should be fastened securely in the middle of the frame, and then there would be no trouble. Carefully pull the frames apart, if necessary cutting apart the places that are fastened together; gently push toward the center of the frame any parts that are to one side, and when returning the frames don't have them just as they were, but turn every other one end for end. Then the same places will not come together as before; and after 4 days or more repeat the process if they are not yet all straight.

4. Yes, generally; but it is always well to have on hand some extra combs of sealed honey to give to any needy colony.

5. I don't know; they may if the season is remarkably good. The probability is that you will need to give them combs of honey or feed them otherwise.

### A Reporter and "The King Bee"

You will see the "king bee" mentioned in the accompanying clipping taken from the thrice-a-week World, of New York. I have been a bee-keeper since 1868, and as yet I can't say that I ever saw a "king bee," unless it is a drone; and if Mr. Fry was stung to death by a drone, don't you think they should have allowed him more space than a mere 1½-inch item in a newspaper?

Is it through my ignorance that I ask what is a "king-bee?"

I have been located here in Cuba with apiaries since 1869, and now have 4 apiaries.

CUBA.

ANSWER.—No, you never saw the king bee mentioned, for you never looked in the right place. This king bee had a sting that worked telescope fashion, and when opened out to its full extent was 1½ inches long. If you want to see him, don't go to looking through hives, but take a 2-inch auger and bore a hole through the skull of the reporter that wrote that item, and when you reach his brain there you will find that king bee in all his glory.

The newspaper item referred to reads as follows:

STUNG TO DEATH BY A KING BEE.

LOCKPORT, N. Y., June 19.—James T. Fry, a farmer, aged 83 years, succumbed this morning to injuries received in an encounter with a honey-bee. Fry was moving the bee-hives on his farm near this city last evening, and in so doing angered the honey-makers. A king bee attacked Fry and stung him several times in the face before Fry succeeded in killing it. He was chased to the house by a swarm of the indignant insects. Blood poisoning quickly developed in the wounds made by the king bee, and affected the heart, causing Fry's death within 12 hours.

### Swarming in Black Hives—Loaf Sugar for Bees—Starters in Sections

1. At the last bee-keepers' convention held in this city, a gentleman stated that if hives are painted black and set in shady places, the bees will not swarm. Have you tried this method with success?

2. Loaf sugar as a food for bees has been mentioned recently in the American Bee Journal, and was, I think, tacitly commended by

Mr. Hasty. What are your objections, if any, to using it in winter in place of candy?

3. If one uses inch starters at the top of sections, do you think it advisable to place starters at the bottom of sections also?

CONNECTICUT.

ANSWERS.—1. No, I never tried it. If he meant that when a colony is set in the shade, the hive being painted black it will not make it swarm any more than being painted white, he was right; for when a hive is kept in the shade the black can not absorb the direct rays of the sun. If he meant that if you paint a hive black and set it in the shade, the colony in such a hive will never swarm, he was as wrong as wrong can be. A colony in the shade will not be as sure to swarm as if in the sun, but so far as black paint makes any difference, that difference will be in favor of swarming.

2. I never tried it, and don't know whether it would be as good or not. If there is any objection, it would be the danger that there might not be enough moisture for the bees to use the dry sugar. In most places that might not be an objection at all. But the safe thing would be to try it at first on a small scale.

3. The size of the top starter has nothing to do with the need of a bottom starter. The object of the bottom starter is to get the comb well fastened to the bottom-bar of the section, and this is needed just as much with a small as with a large top starter; if any difference, it is more needed.

## Reports and Experiences

### Bees Doing First-Rate

I bought 2 colonies, giving \$4 a colony for them last spring. I brought them home May 20, and have had 2 swarms which are doing well. The first swarm is filling the second super. If I can do as well for the bees when they need my help as they are doing for me now, I can talk to N. E. France.

WM. MATTHEWS.

Grant Co., Wis., July 3.

### Good Price for Honey—Wintering Bees

I am the first one who kept bees in this county, and when I first began to talk about them some people thought I had a screw loose somewhere. I sent for 20 hives this spring for different people. I spent over \$100 before I got a live bee, but since we have a railroad here I am all right. I get as high as 50 cents per pound for my honey.

My first swarm issued May 21, and the bees are still swarming.

I winter the bees outdoors in winter-cases, and I can keep my bees out when the thermometer is 30 degrees below zero. I will write about my experiment later on.

Last week we had company who took my bee-hives for tombstones. They said they did not know that I had been living in a graveyard!

FRED HOFFMAN.

Fergus Co., Mont., June 28.

### Weather Hard on the Honey Crop

I had 6 colonies of bees, spring count, and increased to 16 this summer. All are in good condition, although the dry summer has killed all the white clover, and bees are doing nothing. They did very well in the fore part of the summer, but from all appearances I will have to feed if we should not have a fall honey-flow.

I have supers on all except 4 hives, and the bees have started to work in all of them. Some were very nearly full when the flow ended like magic. I took off about 100 pounds of pure white honey the beginning of June, and everybody says it was the nicest they ever saw. I retail my honey from the house at 18 and 20 cents a section, and have 2 grades by weight. We have had no rain of

any account all summer, or this would have been a hummer for honey.

I can not be without the American Bee Journal because I get all my information out of it, and it is a welcome visitor every week.

GEO. M. SEIFERT.

Northampton Co., Pa., July 28.

### Bees Not Doing Well

My bees are not doing very well this season. There seems to be no nectar in the white clover. One colony I have had for 4 years, from which a swarm has never yet issued, but it does the work.

W. H. HOBERT.

Dekalb Co., Mo., July 28.

### Discouraging Time with Bees

This year I have had the hardest fight I've had since I went into the bee-business. When the white clover came into bloom the rain during May destroyed the entire crop. Then came on the crimson clover, and met a similar fate, and dry weather in June got what little buckwheat there was. My bees seem to live "from hand to mouth" with nothing in the brood-chamber.

Time and again I've attempted feeding the weak colonies, placing the Boardman feeder inside and contracting the entrance to barely a bee-space, but robbers come "to beat the band."

My only salvation now is our fall flow of honey, though from my 50 colonies I do not expect to get a pound of surplus honey, because they are so awfully short of supplies. I hope no one else is having these things to contend with.

GEO. M. PHIFER.

Mecklenburg Co., N. C., July 10.

### White Honey Harvest a Failure

The white honey harvest is a failure here. There was much white clover bloom which yielded quite freely early, but failed to yield later. The weather was too cold, especially at night. To-day it is rainy and cool. I have taken only 20 or 25 supers of finished honey from about 70 colonies run for comb honey. Most of the hives now have on 2 supers each, and there are but very few finished sections to be found.

EDWARD BEVINS.

Decatur Co., Iowa, July 25.

### Doing Well With the Bees

I bought a 2-frame nucleus last year, which built up into a strong colony. In the spring of this year I put another hive on top of the one they are in, and now both hives are full of comb, with some honey at the top of each frame and the rest filled with brood. I expect to take 3 or 4 frames of brood from them to put into other hives. This is my first experience in such work, but I have "A B C of Bee Culture," and I think I will get along.

The bees have not swarmed this year. The king-birds are here every day. I often see them catch drones, and I think they have caught queens.

JOEL F. LEE.

McLean Co., Ill., July 5.

### Finding Queens

I seem to have made a little discovery in the matter of finding queens, that is worth reporting, as it enables us to find the queen in any old hive, whether combs can be lifted out or not, and in properly constructed hives it is much abbreviated.

If a box-hive is used make a hole, or two,

if preferred, say an inch auger-hole, (if there isn't one already) in the top and near the back part of the hive; then pour a good volume of smoke in at the entrance, keeping it up until the hive is pretty well filled. Very soon the bees begin pouring out at the hole, and in every instance that I have witnessed the queen was among the first.

In using the simplicity hive I slipped the enamel cloth forward so that about an inch at the back was uncovered. They poured out here and she was soon picked up with very little trouble and no harm whatever was done to the bees.

It might be a good plan to set the hive on an oilcloth, sheet, or the floor, if one is afraid the plan may not work successfully at first, then they would spread out over the back of the hive and on the cloth where she could be looked for. But with a little experience such precaution will be unnecessary. Remember, a good volume of smoke must be used, enough to start the bees at once on a stamped to get out.

DAVIS R. EMMONS.

Champaign Co., Ohio, Aug. 1.

### CONVENTION NOTICES.

**National.**—The International Fair is to be held in San Antonio, Tex., Oct. 21 to Nov.

1. When this Fair is in progress there are very low rates in force on the railroads out for 600 or 700 miles. Then there are harvest excursions from the North on the 2d and 4th Tuesdays of the month. The 4th Tuesday in October comes on the 24th. Considering these facts, it has been decided to select Saturday, Oct. 28, as bee-keepers' day at the Fair. This will give ample time for members from the North to reach the city by starting the 24th. The regular sessions of the convention will begin Monday, Oct. 30, and continue three days.

The headquarters of the National Association will be at the Bexar Hotel (pronounced Baer, long sound of a), corner of Houston and Jefferson Sts., and rates are only \$1.00 a day, and up. The convention will be held at Elks' Hall, 125 W. Commerce St., only two blocks from the Bexar Hotel.

Flint, Mich. W. Z. HUTCHINSON, Sec.

**Missouri.**—The Missouri State Bee-Keepers' Association will meet in Sedalia, Aug. 22 and 23, opening session to be at 2:30 p.m., Aug. 22. The room to meet in will be named later on. The State Fair meeting there at the same time will obtain low railroad rates from all parts of the State. The Livestock Association also meeting there on the 24th will give us some inspiration. Hon. Geo. B. Ellis, Secretary of the Agricultural department, will be there and give a talk and lend a helping hand. Louis A. Osborn, of that place, has kindly offered to act as host, and will direct to the place of meeting and to accommodation. Hotel accommodations can be had at \$1 to \$2 a day. Private boarding cheaper. Let us turn out en masse and have a glorious time as well as to effect some extraordinary progress.

W. T. CARY, Sec.

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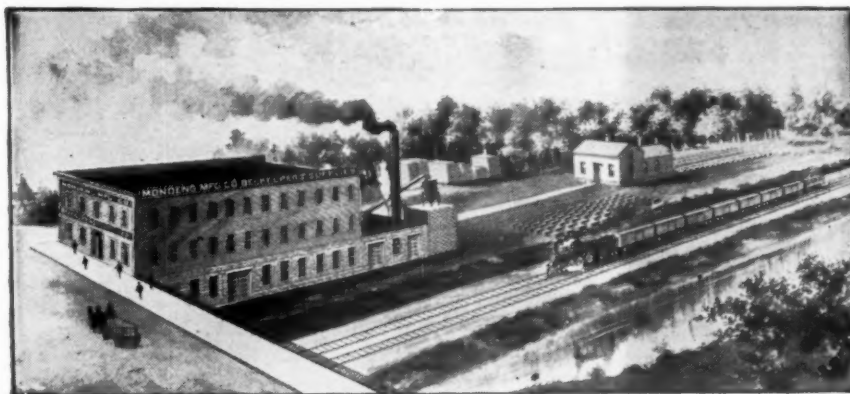
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Ontario, Canada, July 22, 1905.

CHAS. MITCHELL.

GEORGE W. YORK & CO.

The two queens received of you some time ago are fine. They are good breeders, and the workers are showing up fine. I introduced them among black bees, and the bees are nearly yellow now and are doing good work.  
Nemaha Co., Kans., July 15, 1905.

A. W. SWAN.

GEORGE W. YORK & CO.

The queen I bought of you has proven a good one, and has given me some of my best colonies.  
Washington Co., Va., July 22, 1905.

N. P. OGLESBY.

GEORGE W. YORK & CO.

The queen received of you a few days ago came through O. K., and I want to say she is a beauty. I immediately introduced her into a colony which had been queenless for 20 days. She was accepted by them, and has gone to work nicely. I am highly pleased with her and your promptness in filling my order. My father, who is an old bee-keeper, pronounced her very fine. You will hear from me again when I am in need of something in the bee line.  
Marion Co., Ill., July 13, 1905.

E. E. MCCOLM.



## An Untested Italian Queen-Bee FREE as a Premium

For Sending One New Subscriber

for the American Bee Journal for a year with \$1.00.

As has been our custom heretofore we offer to mail a fine Standard-Bred Untested Italian Queen to the person who complies with the following conditions, all of which must be strictly followed:

1. The sender of a new subscriber must have his or her own subscription paid in advance at least to the end of this year.
2. Sending your own name with \$1.00 for the Bee Journal will not entitle you to a Queen as a premium. The sender must be already a paid-in-advance subscriber as above, and the new subscriber must be a **NEW** subscriber; which means, further, that the new subscriber has never had the Bee Journal regularly, or at least not for a whole year previous to his name being sent in as a new one; and, also, the new subscriber must not be a member of the same family where the Bee Journal is already being taken.

We think we have made the foregoing sufficiently plain so that no error need be made. Our Premium Queens are too valuable to throw away—they must be earned in a legitimate way. They are worth working for.

Address all orders to

**GEORGE W. YORK & CO.**

334 Dearborn Street, CHICAGO, ILL.

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EITHER GOLDEN OR HONEY QUEENS AFTER JULY 1.



Our Golden Queens will come up with any other Golden strain. Our Honey-Queens are what some breeders call "Red Clover Queens."

	1	6	12
Untested .....	\$ .75	\$ 4.00	\$ 7.00
Tested (or War. Tested) .....	1.25	7.00	13.00
Breeders .....	5.00		
2-frame Nuclei (no Queen) .....	2.00	11.00	22.00

When Queens are wanted with Nuclei add price of any Queen wanted. We guarantee safe arrival of all Queens and Nuclei. Our breeders may be returned after 30 days, if satisfaction is not given. Cash must come with all orders. Orders are booked and filled in rotation.

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## Fine Italian Queens

Untested, after June 15, 75c; Tested, \$1.00; Breeders—the very best, \$5.00. Terms cash with order. Safe arrival and satisfaction guaranteed. **WALTER S. HOSS.**  
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4 Largest Sizes Soot Burning  
Never Go Out  
And last from 6 to 24 years

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Original  
Direct Draft  
CLEAN  
Bee Smokers

Pat'd 1878, '82, '92 & 1903

3 1/2-inch 2 1/4-inch 2-inch Wonder  
3 1/2-inch 3-inch 2 1/2-inch 2-inch  
\$1.10 \$1.00 90c 65c—per mail.  
Tin 4-in. Smoke Engine 3 1/2-inch 2 1/2-inch 2-inch  
\$1.50 \$1.10 \$1.00 90c—per mail.  
Sent on receipt of price per mail.

**T. F. BINGHAM, Farwell, Mich.**

OTISVILLE, PA., Jan. 18, 1904.

Dear Sir:—I have tried almost everything in the smoker line; 3 in the last 3 years. In short if I want any more smokers your new style is good enough for me. I thank the editor of Review for what he said of it. Those remarks induced me to get mine.  
**FRED FODNER.**

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## QUEENS

Best 3-band Italian Bees free from disease. One Untested Queen, 75 cents; 6 for \$4; 12 for \$7.50. Two-frame Nuclei, with Queen, \$2.25 each.

**LUTHER PRESSWOOD,**

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Choice home-bred and imported stock. All queens reared in full colonies.

One untested queen..... \$ .65  
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All grades ready to send by return mail.

Safe arrival guaranteed. For prices on quantities and description of each grade of

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## LOSS BY LICE

on poultry amounts to many times the cost of Lambert's Lice—the sure preventive. Loss can be saved and profit made by its use. Frees sitting hens from lice without harming eggs or chicks. A trial 10c box will prove it. 100 cts. by express. \$1.50.

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## NEW COMB HONEY-CROP OF 1905

We believe it would pay those having it in car lots or otherwise to write us. Give us your lowest spot cash prices, and fully describe the goods and style of package; when you can ship, etc. We handle more of these goods than any other firm in the U.S. Yours for business,

THOS. C. STANLEY & SON, Bees and Honey

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Queens Now Ready to Supply  
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Stock which cannot be excelled. Each variety bred in separate apiaries, from selected mothers; have proven their qualities as GREAT HONEY-GATHERERS.

Golden Italians Have no superior, and few equals. Untested, 75c; 6 for \$4.00.

Red Clover Queens Which left all records behind in honey-gathering. Untested, 75c; 6 for \$4.

Carniolans —They are so highly recommended, being more gentle than all others. Untested, 75c; 6 for \$4.00.

C. H. W. WEBER CINCINNATI ... OHIO ...

Office and Salesrooms, 2146-48 Central Ave. Warehouses, Freeman and Central Aves.

## Honey and Beeswax

CHICAGO, Aug. 4.—Fancy white, 14c; No. 1, white, 13@13½c; fancy amber, 11@12c; No. 1, amber, 9@10c; fancy dark, 10c; No. 1, dark, 9c. White extracted, 6@7c; amber, 5@6c; dark, 5@5½c. Beeswax, 28c.

The new crop is appearing and selling in a fair way considering that this is midsummer time.

R. A. BURNETT & CO.

ALBANY, N.Y., July 26.—There is some call for honey, new crop, and if here would probably sell for best prices of season, as the general impression is there will be a large crop. White comb honey will start off at 15c to early buyers.

H. R. WRIGHT.

KANSAS CITY, July 20.—New comb honey has made its appearance; fancy white in 24-section cases selling at \$2.75 per case; No. 1 at \$2.50, and good demand. There is no new extracted in as yet, market on old stock being quotable at from 5@6c. Beeswax, 25@28c. C. C. CLEMONS & CO.

PHILADELPHIA, July 19.—The outlook for honey is very good. Some lots of new white honey have already arrived and are selling in a small way, according to grade, from 12@14c. New extracted honey is selling: Fancy white, 6½@7c; amber, 5½@6½c. Beeswax in good demand at 28c.

We are producers of honey and do not handle on commission. WM. A. SELSER.

CINCINNATI, Aug. 2.—At this writing there is a good demand for extracted honey; shipments are arriving daily. New comb honey is coming in quite freely, although the demand is only fair, a condition which may be expected early in the season. We quote amber extracted in barrels and cans at 5½@6½ cents respectively. White clover extracted at 7@8½c. Fancy white comb at 12@15c. Beeswax, 26c.

THE FRED W. MUTH CO.

DENVER, June 26.—The demand for both comb and extracted honey is light at present, and there is enough of old stock on hand yet to last until the new crop comes in; the same is selling as follows: No. 1 white comb, per case of 24 sections, \$2.20; No. 2, \$1.75@2. White extracted, 6½@7½c per pound. Beeswax, 26c.

THE COLOR. HONEY-PRODUCERS' ASSN.

NEW YORK, June 19.—The comb honey market is very quiet and we are hardly justified in making quotations. Some few lots are sold here and there at 13c for fancy, and 10@12c for lower

grades, but no large blocks could be moved at these figures. There is still considerable of last year's crop unsold, part of which, no doubt, will have to be carried over until the fall. Extracted honey in fairly good demand. New crop California honey selling at 6½@7c for water-white, 6@6½c for white, and 5@5½c for light amber. Southern at 5@6c per gallon according to quality. Beeswax somewhat declining; choice average stock selling at 29c.

HILDEBRATH & SEGELKEN

CINCINNATI, O., July 17.—There is no demand for comb honey on account of the warm weather. Extracted is in usual demand for this season of the year. We quote white clover at 7@8c; amber, in barrels, at 5½@5¾c; in cans, 5½@6c. Beeswax, 28c. C. H. W. WEBER.

SAN FRANCISCO, July 19.—White comb, 1-lb. sections, 11@—cents; amber, 8@10c. Extracted, water-white, 5@—cents; white, 4½@—; light amber, 4@—cents; amber, 3@3½c; dark amber, 2½@—c. Beeswax, good to choice, light, 27@29c; dark, 25@26c.

There is now plenty of new honey of good quality on the market, but it is moving slowly and prices continue weak. Prices for all grades of both extracted and comb honey are ruling lower than last year, and even at the low prices there is a tendency for stock to accumulate.

## PURE BASSWOOD HONEY

IN 60-POUND CANS

We have a good supply of Pure Basswood Honey in 60-lb. cans that we can ship by return freight at these prices: 1 can in a box, at 8 cents a pound; 2 or more cans, boxed, at 7½ cents—all f.o.b. Chicago. Cash with order. Sample, by mail, 8 cents in stamps, to cover package and postage.

Address,

YORK HONEY AND BEE CO.

141-143 Ontario St., CHICAGO, ILL.

## Do You Need Queens? By Return Mail?

If so, we can fill your order with the best Queens that money can buy. Try our strain of 3-band Italians; they will not disappoint you with empty supers. Untested Queens, 75 cents; \$8 per doz. Tested Queens, 1 each. Send for circular.

J. W. K. SHAW & CO.

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# WHEN YOU SEND FOR A DOCTOR

**Y**OU get the best you can find, don't you? You would rather spend a thousand dollars this side of the grave than a hundred in funeral expenses. You do not stop to consider the cost. The finest physician, the one best adapted to your needs, is the one you are going to have. So it is with **BEE-SUPPLIES**. A little more money expended on **LEWIS' GOODS** in the beginning will save you double the amount in the end.

**LEWIS' GOODS** are worth every cent they cost, and whether you receive them in

the dead of winter or at the height of the honey-flow, or when your bees are swarming, they will fit accurately, admit of being put together quickly, and will be found to be made of the finest material. This saves you time; this saves you trouble; this saves you honey, and time, trouble and honey mean money to you. Your honey put up in good shape will bring higher prices, and the demand for it will be increased from year to year. This factory's reliable goods have started many a man on the road to success.

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